RECORD OF DECISION

11400 South Final Environmental Impact Statement
Draper, Riverton, Sandy, and South Jordan, Utah

September 13, 2005

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INTRODUCTION

This Record of Decision (ROD) approves a location proposed for transportation improvements for the 11400 South Study Area in Salt Lake County, Utah. The 11400 South Study Area includes the area bounded by 12300/12600 South to 10400/10600 South, and Bangerter Highway to 700 East. It includes portions of the cities of Draper, Riverton, Sandy, and South Jordan, Utah.

The Preferred Alternative being selected (hereinafter the Selected Alternative) includes a new interchange with Interstate 15 at 11400 South, a new river crossing at 11400 South, and widening 10600 South to six lanes from just west of River Front Parkway to Jordan Gateway. This project requires Federal approval of a proposed new Interstate access and may involve Federal Highway Administration funding as authorized by Title 23 of the United States Code. Consequently, pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.), the Federal Highway Administration (FHWA) in coordination with the Utah Department of Transportation (UDOT), prepared an Environmental Impact Statement (EIS) for the project's impact on the human environment. The Final EIS (FEIS) was issued on June 3, 2005.

BACKGROUND

The Wasatch Front Regional Council (WFRC) first identified the 11400 South corridor as an important regional corridor in 1987. The cities of Sandy, Draper, and South Jordan included a proposed I-15 freeway interchange at 11400 South and additional 11400 South corridor improvements in their city Transportation Master Plans in 1996 and 1997. In 1998 the project was placed on the WFRC Long Range Plan (LRP) and the State Transportation Improvement Program (STIP) as a needed project. The project is included in the current WFRC 2030 LRP.

Pursuant to NEPA, FHWA with assistance from the Utah Department of Transportation (UDOT) completed an Environmental Assessment (EA) in the year 2000 for the 11400 South Interchange and Roadway Improvements Project (Project # SP-15-7(156)293). The project consisted of a new interchange at 11400 South and I-15, an east-west roadway connection of 11400 South across the Jordan River, and widening of 11400 South from 1300 West to Bangerter Highway. Based on the EA, the FHWA issued a Finding of No Significant Impact (FONSI), which allowed the interchange and roadway improvements project to proceed. A separate 4(f) evaluation was completed as required by 49 U.S.C. § 303.

Legal action to enjoin the project was filed in Utah's U.S. District Court. In 2001, the U.S. District Court denied the plaintiffs' motion for a preliminary injunction (Davis v. Slater, 148 F. Supp. 2d 1195 D. Utah 2001). The decision was appealed to the 10th Circuit Court of Appeals. During this appeal, the scope of the transportation needs in the project area changed and therefore UDOT in consultation with FHWA decided to withdraw the EA's FONSI and prepare an Environmental Impact Statement (EIS) for a larger project. The official approval by FHWA to withdraw the FONSI came the morning of the day the 10th Circuit Court of Appeals issued its decision - - although the request by UDOT for FHWA to take this action came weeks before.

Notwithstanding FHWA's withdrawal of the FONSI such that there was no longer a valid project, the 10th Circuit Court of Appeals ruled against FHWA and identified the following deficiencies in the environmental document:

- The consideration of alternatives was inadequate;
- Impacts, including cumulative impacts, were not considered adequately;
- Issues related to phasing of the project were not adequately addressed;
- Section 4(f) analysis failed to satisfy the high burden imposed by a project that made use of a public park and/or historic sites; and
- The environmental document analysis was fatally flawed by its use of vague, unsupported conclusions and inadequate, incomplete analysis.

In the EIS for the new project, UDOT and FHWA agreed to address these deficiencies, including a more detailed study of the transportation issues and alternatives in an area wider than just the 11400 South corridor. UDOT and FHWA also prepared a new Section 4(f) Evaluation that is included in the FEIS. Specifically, the FEIS/Section 4(f) Evaluation:

1. Considers 12 initial alternatives in an expanded study area which were screened down to five alternatives advanced for detailed analysis, and follows the Court's direction with regard to alternatives that would combine mass transit and roadway improvements and that would avoid a new river crossing at 11400 South;
2. thoroughly addresses direct, indirect, and cumulative impacts from the five alternatives advanced for detailed analysis;
3. identifies mobility, community, and environmental impacts related to construction phasing of the advanced alternatives;
4. identifies all potentially impacted Section 4(f) resources within the study area, potential impacts to and uses of those resources from each advanced alternative, and measures to avoid, minimize, or mitigate those impacts and uses; and identifies as the Preferred Alternative the alternative with the least overall net harm to Section 4(f) resources; and
5. provides detailed, comprehensive analysis and conclusions, with supporting documentation included in the FEIS appendices and administrative record.

The Study Area boundaries were selected to address the project's purpose and need, and to allow a range of reasonable alternatives in accordance with NEPA, and as determined by the Davis v. Mineta10th Circuit's decision on the previous smaller project. The Study Area boundaries were also selected in accordance with FHWA regulation 23 CFR 771.111(f) for selecting an area large enough to have a meaningful evaluation of alternatives for the project. FHWA requires three elements for the alternative: 1) Connect logical termini so that environmental issues can be treated on a sufficiently broad scope; 2) have independent utility -- to ensure that the project will function properly without requiring additional improvements elsewhere; and 3) so that the project will not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. The alternatives that this project looked at met these three FHWA requirements.

DECISION

The purpose of and need for the project is to maintain, protect, and improve the quality of life in the study area by improving mobility and providing transportation infrastructure to support economic development within the study area through the year 2030.

After independently reviewing the FEIS/Section 4(f) Evaluation, the administrative record, technical reports and public input, FHWA has selected the Preferred Alternative, identified as Alternative 4 in the FEIS, for improvements to the 11400 South Study Area. The Selected Alternative is also the environmentally preferred alternative and is described in detail in the FEIS. This alternative was selected based on an evaluation of information found in the FEIS/Section 4(f) Evaluation, a variety of technical and engineering analyses, and substantial input from the public, local governments, and various federal and state agencies.

ALTERNATIVES CONSIDERED

A broad array of alternatives was initially considered to address the purpose and need statement for the 11400 South EIS Project. As described in the EIS, initial transportation options were considered, and then refined into preliminary alternatives. These preliminary alternatives were screened through a two-tier process, with alternatives that met the screening criteria carried forward, and alternatives that did not meet the screening criteria eliminated from further consideration. The alternative formulation and screening process also took into account the court's holding in Davis v. Mineta by considering among other things a "transit only" alternative, alternatives with a combination of transit, roadway improvements and TSM measures, and alternatives that would avoid a new river crossing at 11400 South. It also concluded that there were no prudent and feasible alternatives that would avoid all Section 4(f) resources and still meet the project purpose and need.

The final result of the screening process was four "Build" alternatives recommended for further detailed analysis. The Build Alternatives, identified as Alternatives 1, 3A, 4, and 7, include various combinations of the following actions: making improvements to existing roadways at 10400/10600 South, 11400 South, and/or 12300/12600 South; constructing a new bridge and connecting the 11400 South roadway over the Jordan River; and constructing a new freeway interchange at 11400 South and I-15. The No Build Alternative was also carried through the process to provide a baseline, as required by NEPA. A Preferred Alternative was selected after detailed analysis of these final five alternatives.

No Build Alternative

The No Build Alternative is defined as no new major construction within the study area, other than the roadway and transit projects that are already in the WFRC LRP. Minor spot improvements, Transportation Management (TM) measures, or signal projects may also be constructed under the No Build Alternative. The LRP Phase 1 improvements are scheduled to occur between 2004 and 2012, Phase 2 improvements are scheduled between 2013 and 2022, and Phase 3 improvements are scheduled between 2023 and 2030.The projects identified in the WFRC LRP include:

A. Widen 12300/12600 to four lanes* from Bangerter Highway to 700 East (LRP Phase 1 – construction completed 2004).
B. Widen 10400/10600 South to four lanes* from Bangerter Highway to Redwood Road (LRP Phase 1).
C. Widen Redwood Road to four lanes * from Bangerter Highway to 10400 South (LRP Phase 1).
D. Widen I-15 to 10 lanes from 10600 South to the Alpine Exit (LRP Phase 1 through Phase 3 – construction completed in 2004 from 10600 South to Point of the Mountain).
E. Widen 700 East to four lanes* from 12300 South to 9400 South (LRP Phase 1).
F. Widen State Street to four lanes* south of 11400 South (LRP Phase 1).
G. Widen State Street to six lanes* north of 11400 South (LRP Phase 1).
H. New Mountain View Corridor Transportation Route six-lane facility (LRP Phase 1 through

Phase 3).

I. Draper Extension of the existing light rail line (LRP Phase 2).
J. Mid Jordan light rail line extension (LRP Phase 1).
K. Commuter rail line from Utah County to Weber County (LRP Phase 1).
L. Widen 11400 South to four lanes* from I-15 to 700 East (LRP Phase 1).
M. Redwood Road Bus Rapid Transit (BRT) line from 14400 South to 8000 South (LRP Phase 2).
N. Mountain View BRT line from 13400 South to 4700 South (LRP Phase 2).
O. Widen 12600 South to four lanes* from Bangerter Highway to SR-111 (LRP Phase 3).
P. Widen 10400 South to four lanes* from Bangerter Highway to SR-111 (LRP Phase 2)
Q. Plus an additional center turn lane or median

The No Build Alternative also includes the following TM measures that are identified in the WFRC Long-Range Plan:

- New bus service within the corridor including Bangerter Highway, 10400/10600 South, 11400 South, and 12300/12600 South;
- Increased bus service within the corridor, including high frequency routes along 10400/10600 South, 3700 West, Redwood Road, Lone Peak Parkway, Jordan Gateway, State Street, and 700 East;
- New/additional bus park-and-ride lots along Redwood Road at 11100 South and 12300 South and at 10600 South and State Street, and a new light rail park-and-ride near 1300 East and 12300 South; and
- New HOV lanes on I-15 from 10600 South through the project area.

Alternative 1

Alternative 1 consists of widening 12300 South and 10600 South to six lanes and adding a new river crossing at 11400 South. In addition to all of the mass transit and roadway projects and TM measures identified under the No Build Alternative, Alternative 1 includes the following components.

A. Widen 10400/10600 South to six lanes* from Bangerter Highway to Jordan Gateway.
B. Widen 12300/12600 South to six lanes* from Bangerter Highway to Lone Peak Parkway.
C. Add a river crossing at 11400 South and widen to four lanes* from Bangerter Highway to State Street.
D. Add I-15 underpass at 11000 South, extend to the west to Jordan Gateway.
E. Add I-15 overpass at 11800 South, extend to the west to Lone Peak Parkway.
F. Modifications to I-15 interchange at 10600 South – triple left turn lanes for southbound to eastbound traffic.
G. Widen State Street to six lanes* from 12300 South to 11400 South.

* Plus an additional center turn lane or median

Alternative 3A

Similar to Alternative 1, Alternative 3A consists of widening 12300 South and 10600 South to six lanes, but there would be no new river crossing at 11400 South. In addition to all of the mass transit and roadway projects and TM measures identified under the No Build Alternative, Alternative 3A includes the following components:

A. Widen 10400/10600 South to six lanes* from Bangerter Highway to Jordan Gateway.

B. Widen 12300/12600 South to six lanes* from Bangerter Highway to Lone Peak Parkway.
C. Modifications to I-15 interchange at 10600 South – triple left turn lanes for southbound to eastbound traffic.
D. Add I-15 underpass at 11000 South; extend to the west to Jordan Gateway.
E. Add I-15 overpass at 11800 South; extend to the west to Lone Peak Parkway.
F. Widen Jordan Gateway to six lanes* from 10600 South to 12300 South.

* Plus an additional center turn lane or median

Alternative 4

Alternative 4 includes a new I-15 interchange and a new river crossing at 11400 South, and widening 10600 South to six lanes from just west of River Front Parkway to Jordan Gateway. In addition to all of the mass transit and roadway projects and TM measures identified under the No Build Alternative, Alternative 4 includes the following components:

A. Add an interchange at 11400 South and I-15, with auxiliary lanes on I-15 northbound and I-15 southbound between 11400 South and 10600 South.
B. Add a river crossing at 11400 South and widen to four lanes* from Bangerter Highway to State Street.
C. Intersection improvements at 11400 South and Bangerter Highway.
D. Intersection improvements on Jordan Gateway/Lone Peak Parkway at 10600 South, 11400 South and 12300 South.
E. Modifications to I-15 interchange at 10600 South – triple left turn lanes for southbound to eastbound traffic.
F. Widen 10600 South to six lanes* from just west of River Front Parkway to Jordan Gateway.

* Plus an additional center turn lane or median

Alternative 7

Alternative 7 consists of a new river crossing at 11400 South, widening 10600 South to six lanes from I-15 to just west of Redwood Road, and widening Jordan Gateway/Lone Peak Parkway to six lanes. In addition to all of the mass transit and roadway projects and TM measures identified under the No Build Alternative, Alternative 7 includes the following components:

A. Extend 11400 South across the Jordan River and widen 11400 South to four lanes from Bangerter Highway to State Street.
B. Intersection improvements at 11400 South and Bangerter Highway.
C. Widen 10600 South to six lanes from Redwood Road to Jordan Gateway.
D. Widen Jordan Gateway/Lone Peak Parkway to six lanes* from 12300 South to 10600 South.
E. Modifications to I-15 interchange at 10600 South – triple left turn lanes for southbound to eastbound traffic.

* Plus an additional center turn lane or median

COMMENTS ON THE DEIS

Comments received on the DEIS were tracked using the project database. A formal response to comments was prepared in accordance with NEPA requirements and included as Appendix B in the FEIS. The response to comments was also distributed to all who provided comments during the public comment period.

SELECTION OF THE PREFERRED ALTERNATIVE

Selection of the Preferred Alternative was based on a comparison of all the alternatives advanced for detailed study in terms of mobility improvements, and environmental, social, economic and Section 4(f) impacts. In addition, the project team considered public and resource agency input and city council recommendations or resolutions regarding the project.

Based on the comparative analysis of the Build Alternatives, summarized in Table ES-1 in the Executive Summary of the FEIS, Alternative 4 was recommended as the Preferred Alternative in the EIS. Alternative 4 offers the greatest mobility improvements and economic benefits within the study area. The Section 4(f) evaluation conducted in conjunction with the EIS concluded that there is no feasible and prudent alternative that will avoid all Section 4(f) resources. All four of the Build Alternatives will directly use both recreational and historic Section 4(f) properties. Alternatives 4 and 7 affect the least number of Section 4(f) recreational facilities. Alternative 3A affects the least number of Section 4(f) historic resources. Based on a quantitative and qualitative comparison among the alternatives, Alternative 4 will have the least **overall** net harm to Section 4(f) resources in the study area (see ***Least Net Harm to Section 4(f) Resources*** discussion below).

The city councils for each of the project area cities (Draper, Riverton, Sandy, and South Jordan) and the Salt Lake County Council have all passed resolutions in favor of Alternative 4. Draper's resolution is contingent on UDOT securing funding to concurrently complete both the interchange and the 11400 South river crossing. The WFRC LRP currently provides for both the interchange and the river crossing to be built during Phase 1 of the plan, which covers the period of 2004-2012. Since the interchange and the river crossing associated with the Selected Alternative are both included in Phase 1 of the WFRC LRP, the time between the construction of each, and the intermediate impacts due to this project "phasing," should be of short duration, as described in Section 4.3.5 of the FEIS. South Jordan's resolution requested that UDOT re-stripe 10600 South to accommodate two additional travel lanes if necessary, rather than widening the roadway between Jordan Gateway and Redwood Road. Based in part on South Jordan City's resolution, Alternative 4 was modified to include widening 10600 South from Jordan Gateway to just past River Front Parkway, rather than all the way to Redwood Road. This modification met the needs and concerns of South Jordan City.

ENVIRONMENTAL IMPACTS

Construction of the Selected Alternative will improve mobility and provide the transportation infrastructure necessary to support economic development within the project study area through the design year 2030. It would also result in environmental impacts. The FEIS/Section 4(F) Evaluation provides a full discussion of the impacts and mitigation associated with the Selected Alternative. A summary of these impacts, both positive and negative, is provided here and includes the following:

- The Selected Alternative is consistent with the Project Area land use plans and would not impact any prime and unique farmland.

- Socioeconomic impacts to community residents, including an erosion of localized social ties and neighborhood cohesion, would result from the wider street and the large cut and fill walls required for the new roadway segment along 11400 South (new roadway would complete 11400 South from approximately 800 West to 1300 West).

- Up to twenty-six homes may be relocated by implementing the Selected Alternative. No business relocations would be required. The relocations are illustrated in FEIS Figures 2-19b, 2-19c, and 2-19d.

- The Selected Alternative would improve emergency response times both by providing a river crossing and by providing a grade-separated railroad crossing over 11400 South.

- The Selected Alternative is estimated to result in a combined $4.6 million annual increase in sales tax revenue for the study area cities. See FEIS Section 4.4.2.

- Under the Selected Alternative, approximately one acre of land in the Jordan River Parkway corridor at the 11400 South crossing site would be converted to transportation-related use. Of that land, 0.07 acres is occupied by trails and is considered Section 4(f) property. Noise levels along the Parkway trail would increase and the bridge would add an additional major man-made element to the view shed. However, the trails along the river would be rerouted under the new bridge to maintain their functionality, and new roadway bridge and accompanying pedestrian/equestrian/bicycle bridge would provide residents on the east side of the river with greater access to recreational facilities in place on the west side of the river.

- The Selected Alternative would result in a slight improvement of air quality in the study area over the 2030 No Build conditions (see Table 4-9 in Section 4.6 of the FEIS).

- The Selected Alternative would increase noise levels at several locations within the study area over the No Build Alternative (see Table 4.12 in Section 4.7 of the FEIS). Per UDOT's noise policy, noise mitigation measures were determined based on degree of effectiveness and cost per residence for noise barriers. Sixteen noise barriers meet the UDOT criteria for effectiveness. These locations are along 11400 South on the north and south sides of the road between River Front Parkway and Chapel View Drive, and on both the north and south sides of the road between Chapel View Drive and Marco Polo Drive. In accordance with UDOT's noise policy, the affected residents were balloted to determine if at least 75% were in favor of noise walls. Thirty-six residents were balloted and 30 responded. All of the respondents (100%) voted in favor of noise walls. Based on the results of the balloting, noise walls will be constructed in all locations. Figures 4-3a through 4-3d of the FEIS show locations of the noise walls. Typical noise wall heights as seen by the affected residents will range from 6 to twelve feet.

- Approximately 0.26 acre of jurisdictional wetlands would be permanently impacted and mitigated.

- Approximately 3.54 acres of habitat for wildlife would be permanently impacted. The majority of habitat that would be impacted (2.0 acres) consists of isolated areas that are not part of substantial wildlife movement corridors and are not along natural streams. These are the areas adjacent to the proposed I-15 interchange and the area in the vicinity of the South Jordan Canal.

- No threatened or endangered species would be affected.

- The Selected Alternative would affect a total of 18 historic properties. The State Historic Preservation Officer (SHPO) office concurs that there would be an "adverse effect" on three of those properties and "no adverse effect" on the other 15. These impacts have been

considered in consultation with the SHPO and the affected Certified Local Governments and mitigation measures have been adopted in a Memorandum of Agreement (Appendix D of the FEIS). No known prehistoric sites would be impacted.

- Visible impacts would occur from the substantial cut and fill walls required for the Selected Alternative in the new roadway segment along 11400 South between River Front Parkway and Midas Creek. The height of the fill walls range from 2 to 25 feet, and the height of the cut walls range from 4 to 24 feet. The locations and characterizations of the cut and fill walls are illustrated in FEIS Figures 2-19a, 2-19c, 2-19c, 4-3c, 4-3d, 4-4 and 4-5.

- The potential for water quality impacts to surface waters from sedimentation would increase during construction. A UPDES storm water construction permit and a storm water pollution prevention plan would be required. The storm water pollution prevention plan would implement best management practices to minimize water quality impacts to surface waters during construction. Devices to minimize impacts may include silt fences, retention basins, detention ponds, interceptor ditches, erosion mates, and mulching.

  The water pollutant analysis performed by the Utah Division of Water Quality resulted in pollutant levels below levels that would present a water quality concern for the receiving water bodies. For discharges greater than 5 cubic feet per second, as stated in the UDOT Manual of Instruction for Roadway Drainage (Jan. 2004), separate permitting actions through the Utah Division of Water Quality, which would require detention would occur.

  The storm drainage system associated with the Selected Alternative adds new elements to each city's existing storm drainage system. Each city's storm drainage system and storm drainage master plan, including Sandy's, have been developed to be consistent with the natural drainage in the area, which is that all water flows towards and eventually into the Jordan River, either directly or by way of a Jordan River tributary. The improvements to the drainage system associated with the Selected Alternative include adding a new detention basin east of Willow Creek to accommodate the increased flows from the roadway improvements in addition to the existing drainage flows. This new pond allows for sediment to settle before continuing on to Willow Creek.

SECTION 4(f)

Section 4(f) applies to the use by a transportation facility of land from a publicly owned public park, recreation area, wildlife/waterfowl refuge, or land in a historic site of National, State, or local significance as determined by the officials having jurisdiction over that land. Section 5 of the 11400 South FEIS provides a detailed discussion of the Section 4(f) resources within the Project Study Area, impacts to them under the various alternatives, and approaches to avoidance and minimization of impacts to those resources.

FHWA has determined that the Selected Alternative would result in the use of one recreational Section 4(f) property and one wildlife Section 4(f) property. The recreational property is the Jordan River Parkway Trail and the wildlife property is the Utah Reclamation, Mitigation, and Conservation Commission (URMCC Migratory Bird Habitat Restoration Project). The use of the Parkway trail would consist of a minor relocation and covering of the existing two trails on the west side of the river at 11400 South for 120 feet as they pass under the new roadway bridge. The use of the URMCC site consists of converting 0.15 acres of URMCC property to UDOT right-of-way at 10600 South just east of the Jordan River due to road widening at that location. The URMCC property would have the same impacts under any of the Build Alternatives.

The Selected Alternative would also result in the use of 18 historic Section 4(f) properties. The use of fifteen of these properties would be partial property takes (strip takes) that involve converting strips of land along the frontage of the historic property to UDOT right-of-way. Because these small strip takes do not impact the integrity of these historic properties, FHWA/UDOT has determined, and the SHPO has concurred, that such impacts result in a No Adverse Effect under Section 106 of the National Historic Preservation Act (NHPA). The use of the remaining three properties would consist of total property takes (parcel takes) of the historic properties, resulting in Adverse Effect determinations for these properties.

FHWA has determined that: (1) there is no prudent and feasible alternative that avoids the use of Section 4(f) properties; (2) the Selected Alternative results in the least overall net harm to Section 4(f) resources, and (3) the project incorporates all possible planning to minimize harm resulting from the proposed use of this property. These findings are explained in the FEIS/Section 4(f) Evaluation and are summarized below.

Consideration of Avoidance Alternatives

Although the No Build Alternative would not have any impacts to historic, recreational, or wildlife Section 4(f) properties, it does not meet the project purpose and need. Therefore it was not considered prudent and feasible.

The project purpose and need includes improving east-west mobility in the study area, which in turn requires the improvement or addition of east-west transportation facilities. Because of the linear nature of the Jordan River Parkway Trail, the historic canals, and the historic railroad, which run north-south through the entire study area, and because existing east-west roadways have Section 4(f) properties scattered along their length, there were no feasible and prudent alternatives that could completely avoid all these resources and still meet the purpose and need for the project. A "transit only" alternative that could potentially avoid Section 4(f) resources was considered (Alternative 8) but modeling indicated that it would result in negligible mobility improvements and would be similar to the No Build Alternative in terms of future congestion. This alternative included all of the transit improvements and TM measures in the LRP plus additional bus routes, additional bus service on existing routes, and additional park and ride lots, and it was assumed that these additions would result in a 30 percent increase in transit trips in the study area, beyond what is expected with implementation of all of the other transit improvements in the LRP. Even with that increase there would be 7 critical intersections at or over capacity in 2030. This alternative did not meet purpose and need and therefore was not considered prudent and feasible and was screened out at the Tier 2 level. See FEIS at 2-26, 2-29 to 2-32 and 5-4. No other reasonable and prudent alternatives that met the purpose and need and avoided Section 4(f) resources were identified. All of the carried-forward Build Alternatives involved making improvements to existing roadways running east and west in the study area or adding a new east-west river crossing, and so all of the Build Alternatives would cross some or all of these historic and recreational resources.

Least Overall Net Harm to Section 4(f) Resources

In the absence of any prudent and feasible alternatives that would avoid the use of all Section 4(f) resources, an evaluation was conducted of the Build Alternatives to determine which would cause the least overall net harm to those resources, after the application of all possible planning to avoid and minimize harm for each alternative, and in consultation with the agencies with jurisdiction over the affected resources. That evaluation is documented in the FEIS/Section 4(f) Evaluation at Sections 5.6 to 5.8, and its results are summarized in Table 5-7. In sum, Alternatives 4 and 7 have

the least net harm to recreational and wildlife Section 4(f) resources while Alternatives 3A, 4, and 7 are considered to have similar impacts to Section 4(f) historic resources. Although Alternatives 4 and 7 are similar in terms of 4(f) impacts, Alternative 4 has fewer strip takes from historic properties than Alternative 7 and therefore has been determined to have the least overall net harm.

While the number of impacted properties is an important factor for comparison purposes, the relative significance of the impacts, to the extent it could be reasonably characterized and compared amongst recreational and historic resources, was also considered in making the assessment of least overall net harm. Although the historic resource impacts are considered similar amongst the Build Alternatives, Alternative 3A is recognized as having the least impact to this resource type. However, after full consideration of the quantitative and qualitative assessment of the impacts and avoidance and minimization measures for all resources, significant impacts to the recreational resources under Alternatives 1 and 3A tipped the balance in favor of selecting either Alternative 4 or 7 as the least overall net harm. Alternative 4 was selected over Alternative 7 due to fewer impacts to historic resources and because it better supports the purpose and need of the project.

The three recreational uses that would occur under Alternatives 1 and 3A but not under Alternatives 4 and 7 include the direct and permanent use of approximately 0.3 acres and 0.1 acres of park property, respectively, at the Jordan River Rotary Park (Draper) and the Riverton City Skate Park, with proximity impacts to the existing and planned park amenities at both locations, and the long term (one year) temporary use of 6 acres of park property at the Galena Hills Community Park (Draper), with impacts to several planned park facilities. The entities with jurisdiction over these parks consider these impacts to be significant and inconsistent with park plans.

Alternatives 4 and 7 would include a crossing of the Jordan River Parkway trail, which is a Section 4(f) resource, but the agencies with jurisdiction over the trail do not consider the resulting impacts to be significant so long as the new bridge and trail are appropriately designed to accommodate the existing and proposed trails and to enable access from the east side of the river.

Measures to Avoid and Minimize Harm to Section 4(f) Resources

Measures to avoid and minimize the use of 4(f) resources have been incorporated into the project. A full description of these measures is included in Section 5.6 of the FEIS. Summaries of these measures are discussed below.

Jordan River Parkway and Trail

The Selected Alternative would include widening of the existing bridge and roadway where it crosses the Jordan River Parkway at 10600 South, and a new crossing of the Jordan Parkway at 11400 South. At these locations the Section 4(f) resource has been determined to consist of the existing and any planned bicycle, pedestrian and equestrian trails.

To avoid a Section 4(f) use of the existing trail from widening of the bridge at 10600 South, UDOT will not locate any new bridge support structures in the trail and during construction UDOT will either provide a trail detour during temporary closures of the current trail, or limit any such closures to late night/early morning hours. Based on application of applicable constructive use criteria, increased noise from the widened bridge will not constitute a constructive use.

In an effort to avoid a Section 4(f) use of the existing and planned multiuse and equestrian trails at 11400 South, the project team considered completely spanning the trails with the new bridge. In order not to take any of the 4(f) resource, the vertical alignment of 11400 South would have to be raised at River Front Parkway to accommodate the structure depth, either forcing the closure of River Front Parkway or making it a grade separated facility with 11400 South spanning over it.

Closing River Front Parkway would reduce the forecasted mobility improvements from the Selected Alternative, would increase the number of required relocations by seven, would have greater visual impacts, and would impact emergency response times. Because of these impacts, this option for total avoidance of the 4(f) resource was not considered prudent and feasible. In addition, because the current planned design of the bridge would preserve the existing and planned trails, there would be little practical difference in impacts between it and a longer span bridge. Indeed, because trail functionality would be preserved and in some ways enhanced, and because the Section 4(f) land occupied by the existing trails would effectively be replaced with "new" 4(f) lands where the trails would be relocated, there is a question of whether there would truly be a Section 4(f) "use" at the 11400 South crossing. See FEIS at pg. 5-22. To be conservative, however, it was assumed for purposes of the Section 4(f) Evaluation that there would be a Section 4(f) use at this location.

Additional measures to minimize harm to the Parkway Trail included reducing the roadway cross-sections at the bridge by narrowing the median and shoulder, and assuring that the trail function would be maintained at the river crossing.

In order to maintain the current and planned recreational use of the Jordan River Parkway Trail, the new bridge and roadway at 11400 South would be constructed to span the river by a sufficient distance to allow the trails to be relocated and to pass under the roadway and bridge. Trail users would pass under the bridge and continue on the trail. A conceptual layout of the new bridge and the relocated and planned trails is found in the FEIS at Figure 5-8b. Similar trail underpasses are currently in place at the bridges at 10600 South and at 12300 South, and the widening of the bridge at 10600 South would also provide for continued use of the trail underpass. Other trail underpasses have been completed north of the study area at I-215, 7200 South, and 5300 South.

The new roadway bridge at 11400 South would be painted a natural color to blend in with the surrounding vegetation. This would be determined with input from the cities and the citizens committee, known as the Transportation Idea Exchange (TIE), which was formed during the EIS process and would continue during project design and construction. All disturbed areas within the parkway would be revegetated with native vegetation in accordance with UDOT Standard Specifications (Section 01571, *Temporary Environmental Controls*).

South Jordan City planned to construct a pedestrian crossing of the Jordan River at approximately 11200 South. Rather than having two new river crossings in this area, UDOT has been working with South Jordan City to incorporate a pedestrian bridge into the proposed new 11400 South roadway crossing as a separate structure. The pedestrian bridge would allow pedestrians, bicyclists, and equestrians to cross the Jordan River at 11400 South. The pedestrian bridge would be at a lower level than the roadway and would provide separation from traffic. The pedestrian bridge would tie into existing elements of the Jordan River Parkway Trail on the east side of the river and the trail planned by Draper on the east side of the river, providing a linkage between trails on the east side of the river and trails on the west side of the river. A simulation of the approximate appearance of the new road bridge and pedestrian bridge is found in the FEIS at Figure 4-7.

A storm water detention basin adjacent to the new bridge would be designed to be more aesthetically pleasing. This could be done by constructing the pond with a natural shape (not rectangular), a stair-step approach with smaller ponds within a larger pond system, and by planting vegetation around the pond for storm control. The pond design would be developed in coordination with the UDOT Region 2 Environmental Engineer, Landscape Engineer, and Hydraulics Engineer and the Utah Division of Wildlife Resources.

URMCC Migratory Bird Habitat Restoration Project
Because URMCC property is located on both the north and south side of 10600 South at the Jordan River, this property cannot be avoided. Measures to minimize harm to this property included redesign of the widening project so that all the expansion would occur on the south side of the existing roadway, as requested by URMCC. This avoids more valuable wetlands located on the north side of the road. For the impacts that would occur on the south side, URMCC has indicated to UDOT that they would prefer compensation for the impacted property in the form of replacement land or services. URMCC has agreed to work with UDOT during the right-of-way acquisition process to determine the appropriate compensation/mitigation.

Historic Resources
As part of the Section 4(f) evaluation, reducing the length of roadway widening along 10400/10600 South was considered as a means of avoiding impacts to Section 4(f) historic resources that have frontage on that road. Widening just from River Front Parkway to Jordan Gateway, instead of from Redwood Road to Jordan Gateway would also address South Jordan's concerns about further widening of 10400/10600 South. It was determined that with this modification, Alternative 4 would still meet the project purpose and need for mobility improvement in the study area. Therefore, as it would result in three less Section 4(f) impacts, this reduced widening was incorporated into Alternative 4.

Other measures to minimize harm to historic properties included alignment shifts and cross section reductions at the property location (FEIS Section 5.6.2). The canals and railroad tracks affected by the Selected Alternative are linear features, running perpendicular to the roadway corridors proposed for construction/reconstruction. Therefore, there would be no way to avoid these properties by either shifting the roadway alignment or minimizing the roadway cross sections. However, a number of historic homes could be avoided by these measures. Four historic properties were avoided as a result of alignment shifts. Reducing the roadway cross-sections at those locations reduced impacts to an additional six properties.

A Memorandum of Agreement (MOA) has been developed and signed by FHWA, UDOT, SHPO, and consulting parties for the Selected Alternative. A copy of the signed MOA is included in Appendix D of the FEIS. Mitigation measures in the MOA include documenting adversely affected historic properties with full Intensive Level Surveys (ILS), marketing the adversely affected properties where determined marketable, salvaging architectural elements of affected properties prior to demolition, and providing for compensatory mitigation if marketing the structure is not feasible and prudent.

If any cultural resources are encountered during construction, construction would immediately be stopped in the vicinity of the discovery, and any materials would be evaluated in accordance with UDOT Standard Specification 01355, Part 1.10.

MITIGATION MEASURES FOR ENVIRONMENTAL IMPACTS

As the Selected Alternative for this project was developed and reviewed through the NEPA process, the alignment underwent numerous changes to minimize adverse environmental impacts. Many potential impacts have been eliminated or reduced by adjusting the proposed action and/or avoiding sensitive resources. The remaining impacts associated with project construction and operation will be minimized by adhering to the current UDOT standard specifications for road and bridge construction and a variety of project-specific mitigation measures. The environmental consequences

of this project, including direct, indirect and cumulative impacts, are described in Section 4 of the FEIS. The FEIS also includes a variety of mitigation measures that have been incorporated here, as appropriate.

UDOT will take steps to implement Context Sensitive Solutions, a UDOT/FHWA initiative to develop designs based on environmental/aesthetic sensitivity to the Project. Following is a list of mitigation commitments to be carried out in conjunction with the final design and construction of the Project:

Land Use

The mitigation for land use impacts is described in Section 4.1.1 of the FEIS. The Jordan River Parkway trails will be accommodated at the new and widened roadway crossings. UDOT will maintain access to existing farmlands by purchasing right-of-way easements or making minor alignment adjustments where necessary. If the road construction activities will impact an irrigation system, UDOT will work with the irrigation company to redesign the system as necessary to ensure that users still have access to their irrigation water. Measures may include piping or lining canals so water can still be diverted and used. In some instances, where there may only be one or two impacted downstream users, UDOT may negotiate with the affected users to purchase their water rights.

A temporary railroad bypass (or shoofly) will be constructed to allow grade separation of the railroad crossing on 11400 South. The shoofly would use the same level of railroad crossing warnings as is currently being used at the time of construction. The impacts would be temporary, but long-term (a year or longer). Once construction of the railroad bridge and rail line was completed, the rail traffic will be shifted to the new line, the shoofly removed, and the impacted properties will be restored to their original condition.

Community Impacts

Mitigation measures to reduce negative impacts on community cohesion for the Selected Alternative are described in Section 4.3.1.1 of the FEIS and include improving pedestrian facilities (such as sidewalks and crosswalks), replacing fencing and/or vegetative screens, providing comparable housing in the instance of relocations, providing noise barriers where warranted, and enforcing traffic speed limits. These mitigation measures will help promote outdoor activity and interactions among residents, enhance the privacy of residents whose properties adjoin affected road corridors, and reduce disturbance impacts associated with increased traffic volume and noise.

A frontage road along the north side of the widened 11400 South roadway from approximately 550 West to Trent Drive (720 West) that intersects 11400 South at 700 West will be constructed, providing residents in the vicinity north and south of 11400 South at the 700 West area a signalized access to their neighborhoods for vehicles and pedestrians (FEIS Figure 2-19D).

A Maintenance of Traffic (MOT) Plan will be developed and implemented during construction to assure access to residences, businesses, community facilities and services, and local roads. The public will be afforded opportunity to comment during the development of this MOT Plan. Construction signs indicating access points and signs indicating that businesses are still open will be used to reduce construction impacts to businesses along the corridor. Construction sequencing and activities will be coordinated with emergency service providers to minimize delays and response times during the construction period.

Property Acquisitions

Property acquisitions, both partial and total, will occur according to federal regulations and UDOT policies that include compensation at fair market value, as described in Section 4.3.2.1 of the FEIS. UDOT will comply with Title VI of the Civil Rights Act of 1964 and the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended, when considering property acquisitions. In the instance of relocations of residences or businesses, similar property qualities will be sought out to the greatest extent practicable.

Safety

Mitigation measures for safety impacts associated with the Selected Alternative are discussed in Section 4.3.4.1 of the FEIS and include traffic signalizations, crosswalks, and traffic barriers and/or medians. Additional mitigation measures along 11400 South include a frontage road in the vicinity of 700 West with a supplemental right in/right out access, and a grade-separated railroad crossing. Enforcement measures for the speed limit on this roadway will include the permanent installation of a device that measures and displays the speed of passing cars, while also displaying the speed limit for the road.

Economics

Section 4.4.4.1 of the FEIS discusses mitigation for economic impacts. To minimize lost sales due to construction activities, construction planning will include maintaining access to businesses in construction areas. Construction signage indicating open business access points will be noticeably placed alongside the roadway. Traffic congestion due to construction activities will be minimized through traffic controls, such as warning signs and markers, detours, and flaggers to direct traffic through construction areas.

Recreation Resources

Mitigation measures for recreational resources are discussed in Section 4.5.1 of the FEIS and include making the new roadway bridge at 11400 South a more natural color to fit into the surroundings, and providing a separate pedestrian/equestrian bridge that would be next to the roadway bridge to provide access to the parkway trails that are planned for both sides of the river. In addition, where the road crosses the Jordan River, street lighting will be placed on the interior of the parapets and directed downward in order to keep light on the roadway and limit light escaping to the ambient environment.

Air Quality

Mitigation measures, discussed in Section 4.6.6 of the FEIS, will include developing and implementing a dust control plan for all construction activities and monitoring opacity during construction. Dust control measures would be provided in accordance with UDOT Standard Specifications (Section 01572, *Dust Control and Watering*).

Noise

Mitigation for noise impacts is discussed in Section 4.7.1 of the FEIS. Sixteen noise barriers in four different locations within the project study area qualify for noise walls per UDOT's Noise Abatement policy (*Noise Abatement, UDOT 08A2-1,* revised: March 8, 2004). These locations are along 11400

South on the north and south sides of the road between River Front Parkway and Chapel View Drive, and on both the north and south sides of the road between Chapel View Drive and Marco Polo Drive. In accordance with UDOT's noise policy, the affected residents were balloted to determine if at least 75% were in favor of noise walls. Thirty-six residents were balloted and 30 responded. All of the respondents (100%) voted in favor of noise walls. Based on the results of the balloting, noise walls will be constructed in all four locations. Figures 4-3a through 4-3d show locations of the noise walls.

Between River Front Parkway and Chapel View Drive, the noise walls will be 12 feet high on both the north and south sides of the road in order to affectively reduce noise levels. Between Chapel View Drive and Palisade Rim, noise walls will range from 6 to 8 feet high on the north side of the road and from 4 to 12 feet high on the south side of the road, depending on area topography (in some locations noise walls will be placed atop cut and fill walls, as indicated in Figure 4-4 of the FEIS). While the proposed noise walls would not completely restrict noise from the proposed roadway, the noise walls would reduce noise levels to impacted receivers by at least 5 decibels. A 5-decibel reduction provides a readily perceptible decrease in noise levels to adjacent receivers.

Construction noise will be minimized through the application of noise-abatement measures contained in UDOT's current standard specifications for road and bridge construction (Specification Number 01355). All contractors involved in construction activities will be required to adhere to these measures.

Surface Waters

Impacts to surface waters will be mitigated by the use of detention basins for new discharges into creeks and canals, as discussed in Section 4.8.1.3 of the FEIS. Coordination with the UDOT Region 2 Hydraulics Engineer and the study area City Engineers will continue throughout the project design phase to assure coordination with the cities' storm water program requirements. In addition, during final design it will be determined if the existing storm drainage into the Jordan River on 10600 South could be diverted through the wetlands located on the northeast corner to improve runoff quality through the biofiltration process.

During roadway construction activities, a storm water construction permit and Storm Water Pollution Prevention Plan (SWPPP) will be required. Best Management Practices (BMPs) specified in the SWPPP will be used during construction to minimize impacts to surface water. Erosion control devices would be used to minimize erosion and sedimentation in areas of temporary as well as permanent land disturbance. Devices may include silt fences, retention basins, detention ponds, interceptor ditches, erosion mats, and mulching. Temporarily disturbed areas will be revegetated upon completion of construction.

The storm drainage system associated with the Selected Alternative adds new elements to each city's existing storm drainage system. Each city's storm drainage system and storm drainage master plan, including Sandy's, have been developed to be consistent with the natural drainage in the area, which is that all water flows towards and eventually into the Jordan River, either directly or by way of a Jordan River tributary. The improvements to the drainage system associated with the Selected Alternative include adding a new detention basin east of Willow Creek to accommodate the increased flows from the roadway improvements in addition to the existing drainage flows. This new pond allows for sediment to settle before continuing on to Willow Creek.

Floodplains

Section 4.8.3.1 of the FEIS discusses mitigation for floodplain impacts. Federal Emergency Management Agency (FEMA) coordination and permitting will be required since the new roadway bridge at 11400 South would encroach into the Jordan River's regulatory floodway. Structure crossings will be sized to meet UDOT drainage criteria, FEMA requirements outlined in 44 Code of Federal Regulation (CFR), and any additional requirements outlined in 23 CFR 650.

Wetlands

Mitigation for impacts to wetlands is discussed in Section 4.9.6 of the FEIS. All impacted wetlands and other waters will be mitigated in accordance with current UDOT, FHWA, and Army Corps of Engineers (Corps) wetland mitigation policies and the conditions of the Corps §404 Nationwide Permit. All mitigation plans will be developed in coordination with the Corps and other appropriate agencies during the §404 permitting process.

The wetlands impacted by the Selected Alternative are expected to be replaced at UDOT's wetland mitigation bank, a 15-acre property located south of the study area at approximately 12800 South near the Jordan River. During the Section 404 permitting process for this project, the mitigation bank review team, which includes representatives from the Corps, US Fish and Wildlife Service (USFWS), Utah Division of Wildlife Resources (UDWR), Utah Division of Water Rights, the US Environmental Protection Agency (EPA), and the Division of Forestry, Fire, and State Lands, will determine the amount of the 15-acre property to be used as mitigation for this project.

Additional Mitigation Measures for Wetlands
In addition to compensatory mitigation, the following mitigation measures will be employed to minimize adverse impacts to wetlands and other waters during project construction:

- Unnecessary temporary impacts will be avoided by fencing the limits of disturbance through wetland areas prior to construction;
- BMPs will be used during all phases of construction to reduce impacts from sedimentation and erosion, including the use of check dams, silt fence, slope drains, drop-inlet barriers, sediment traps, berms, and/or curb inlet barriers;
- No equipment staging or storage of construction materials will occur within 50 feet of wetlands or other waters;
- The use of chemicals, such as soil stabilizers, dust inhibitors, and fertilizers within 50 feet of wetlands and other waters will be prohibited;
- Equipment will be refueled in designated contained areas, at least 50 feet away from wetlands and other waters;
- Where practicable, work will be performed during low flows or dry periods and if flowing water is present it would be diverted around active construction areas;
- No discharge of effluent into wetlands or other waters will occur;
- Temporary fill material will not be stored within wetlands or other waters;
- Any wetland areas used for construction access will be covered with a layer of geotextile, straw and soil prior to use; and
- The new and modified bridges over the Jordan River will be designed to prevent any direct discharge of storm water runoff into wetlands.

Wildlife

Section 4.10.3 of the FEIS discusses mitigation for impacts to wildlife. The following mitigation measures have been considered for the Selected Alternative and will be implemented to benefit and enhance wildlife habitat, including special status species habitat. The extent/acreage of the mitigation will be determined in consultation with the USFWS and UDWR following final design and construction.

- A revegetation plan will be developed for areas that will be temporarily disturbed during construction. The plan will address selection of appropriate plant species, soil preparation, seeding rates, and seeding methods. The revegetation plan will be reviewed and approved by the UDOT Landscape Architect and UDWR;
- All areas temporarily disturbed during construction will be seeded or planted with native grasses, forbs, shrubs, and trees per the revegetation plan. Seeding will occur in the appropriate season; temporary seeding or mulching may also be required. All areas to be reseeded will be disked or tilled prior to planting and/or seeding;
- Areas of riparian/urban forest habitat removed for construction will be replaced or areas of existing riparian/urban forest habitat in close proximity to the removed areas will be enhanced to compensate for the effects of habitat loss. The decision as to whether habitat will be replaced or enhanced will be determined upon final design and further consultation with USFWS and UDWR. Factors to consider may include: availability of additional lands, the condition of the existing habitat within and adjacent to the proposed corridor, and a cost/benefit analysis of the proposed action. Habitat replacement or enhancement will consist of planting native trees and shrubs, control of noxious weeds, seeding of native species, or establishment of conservation easements on riparian/urban forest areas in the vicinity of the project. Habitat enhancement will be accomplished within the study area evaluated in the FEIS, ideally along the Jordan River;
- Habitat enhancements will also include installation of day and/or night roosting bat habitat on the pedestrian bridge. During final design, UDOT will coordinate with USFWS and UDWR personnel regarding bat habitat enhancements;
- Arched pipes (up to 14 feet wide by 10 feet high) that include a natural substrate bottom will be installed for the expanded crossings of Willow Creek and Midas Creek to allow for better wildlife movement along these stream corridors;
- During construction, vehicle operation will be restricted to the designated construction area, which would be fenced or clearly flagged in areas of riparian/urban forest habitat;
- Noxious weeds will be controlled during construction and operation in compliance with state and county requirements and UDOT BMPs;
- BMPs will be used during all phases of construction to reduce impacts from sedimentation and erosion, including the use of check dams, silt fence, slope drains, drop-inlet barriers, sediment traps, berms, and/or curb inlet barriers; and
- Storm water detention ponds will be constructed such that wildlife will not utilize the water-storage area. UDOT will coordinate with USFWS and/or UDWR biologists on the final design of storm water detention ponds.

<u>Jordan River Bridge Crossing</u>

- The bridge at 11400 South will be designed so that wildlife are provided adequate crossing space on each side of the Jordan River and shrubs and grasses will be planted at the

entrances and underneath the bridge, as appropriate, to provide small animals cover when entering or passing through the bridge;

- Cottonwoods will be planted in the free-span area of the river crossing prior to construction to minimize light and noise impacts during construction activities; and
- Bridge lighting will be placed on the interior of the parapets and directed downward in order to keep light on the roadway and limit light escaping to the ambient environment, and to prevent birds from becoming trapped in the light beam.

Migratory Birds

- The removal of trees and shrubs in riparian/urban forest habitat will be conducted during the non-nesting season as much as practicable. If there are areas where trees and shrubs are not removed during the non-nesting season, preconstruction surveys will be performed and clearing and construction activities will be conducted so as to avoid the destruction of active nests and loss of eggs or live young;
- Construction work will be avoided on existing bridges on which active swallow nests exist to avoid disturbing nests and young. If construction will occur during the nesting season, nests must be removed prior to the nesting season so activities will not disturb active nests.

Nesting Raptors

- Raptor nest surveys will be conducted prior to construction activity to determine presence of active nests; and
- Seasonal spatial buffer zones will be implemented to avoid disturbance to nesting raptors. UDOT will consult with USFWS or UDWR to determine specific buffer distances and duration based on species and site characteristics.

Special Status Species

- Common Yellowthroat and Blue Grosbeak surveys will be conducted prior to construction activity to determine presence of birds. If Common Yellowthroat or Blue Grosbeak individuals are found, UDOT will consult UDWR in order to clear vegetation prior to the nesting season to discourage nesting in the construction area.
- Burrowing owl surveys will be conducted to determine presence of the species in the construction ROW. If burrowing owls are present, UDOT will consult UDWR and implement seasonal buffer zones during the breeding season.

Cultural Resources

Mitigation for impacts to cultural resources is discussed in Section 4.11.3 of the FEIS. A Memorandum of Agreement (MOA) has been developed and signed by FHWA, UDOT, SHPO, and consulting parties for the Selected Alternative and a copy is included in Appendix D of the FEIS. Mitigation measures in the MOA include documenting adversely affected historic properties with full Intensive Level Surveys (ILS), marketing the adversely affected properties where determined marketable, salvaging architectural elements of affected properties prior to demolition, and providing for compensatory mitigation if marketing the structure is not feasible and prudent.

If any cultural resources are encountered during construction, construction will immediately be stopped in the vicinity of the discovery, and any materials will be evaluated in accordance with UDOT Standard Specification 01355, Part 1.10.

Visual Resources

Section 4.13.1 of the FEIS discusses mitigation for impacts to visual resources. The new roadway bridge and associated structures at 11400 South will be painted more natural colors to lessen the contrast of the man-made and the natural elements. Street lighting will be selected to minimize lighting of the night sky. Decorative elements will be added to the cut and fill walls and sound walls, such as painting or patterning of the concrete.

Additional geotechnical evaluation will be conducted during final roadway design to determine if taller cut walls could be constructed, thereby reducing the height of the required fill walls in the area between Marco Polo Drive and Chapel View Drive. Specifically, the evaluation will determine if construction of a taller cut wall (increasing the cut walls from a maximum of 25 feet to a maximum of 32 feet) is viable near Marco Polo Drive. If so, one additional relocation may be required (a residence on Annika Circle); however, this will reduce the required height of the fill walls in this area from a maximum of 12 feet, as currently proposed, to a maximum of five feet.

MONITORING OR ENFORCEMENT PROGRAM

A variety of monitoring and enforcement measures to minimize harm during construction will be implemented for the project:

- The mitigation measures listed above will be incorporated into the construction contract, plans, and specifications and will be monitored in accordance with a construction monitoring plan developed to include all monitoring commitments in this ROD and those required to comply with specific permits.

- The UDOT Region 2 Resident Engineer, who will have the authority to enforce adherence to these measures, will supervise construction activities.

- An independent environmental consultant will monitor mitigation commitments during construction, in coordination with the Resident Engineer.

- A committee of residents, business owners, and other interested citizens will continue to meet during the design and construction of the project to provide input on mitigative treatments, enhancement opportunities, and overall design content; and to transmit project information to their constituents.

- The Utah Division of FHWA is responsible for administering the Federal-Aid Highway Program in Utah and will make periodic inspections of all phases of highway design and construction to assure compliance with federal requirements including those of NEPA.

Permits

The following permits will be required for this project:

- Stream Alteration Permit is required for alterations to the Jordan River bed or bank or alterations of any other streams.

- Flood Control permit is required for construction of bridges, culverts, channel improvements, etc. In addition, the canal companies may require separate agreements or permits for work

done on their canals

- FEMA permitting and coordination will be required since the new roadway bridge would encroach into the Jordan River's regulatory floodway.

- Clean Water Act Section 404 Permit is required for activities involving the dredge or fill of materials into "waters of the state", including wetlands. The Corps has indicated that a Nationwide Permit would be appropriate for the Selected Alternative.

- An easement for river crossings or stream alterations must be obtained from the Utah Division of Fire, Forestry, and State Lands.

- A Utah Pollutant Discharge Elimination System (UPDES) General Storm Water Permit for Construction Activities is required for all construction projects that disturb one acre or more of land.

- A Notice of Intent (NOI) will be submitted to the Division of Air Quality if any rock crushing plants, asphalt plants, or concrete batch plants are located at the proposed construction site.

COMMENTS ON THE FEIS

The FEIS was prepared consistent with the procedural and planning requirements of NEPA, Section 4(f), and FHWA and UDOT regulations and guidance. The FEIS specifically describes the inadequacies in the prior NEPA/4(f) Evaluation as found by the 10th Circuit in the Davis v. Mineta decision, and the steps taken to address those inadequacies. The agencies believe that their efforts to involve and respond to the concerns of the public and other agencies during the NEPA process, as documented in the FEIS at Section 6, went well beyond what is legally required. As a result, the FEIS and Selected Alternative are legally adequate and they have gained acceptance by virtually all of the stakeholders and by all of the reviewing and consulting agencies.

A total of seven public comment emails/letters and one agency comment letter on the FEIS were received during the public comment period. A complete set of all the comments is available for review at the UDOT Region 2 office at 2010 South 2760 West in Salt Lake City, Utah, or at the UDOT Environmental Division, 4501 South 2700 West in Salt Lake City, Utah.

Three of the public comment e-mails expressed support for the preferred Alternative. Two public comment e-mails were from one individual, expressing concern about the lack of noise mitigation in his area. This particular resident lives adjacent to Lone Peak Parkway, a corridor that will not be reconstructed as part of the Selected Alternative. Therefore, per UDOT's noise policy, noise walls would not be constructed in his area. One public comment e-mail requested that Janalynn Drive, which intersects with 11400 South at approximately 1030 West, be closed off so it dead ends at 11400 South. If residents in this area would like to pursue this option, they would need to coordinate with and obtain approval from South Jordan City.

The remaining public comment letter was from a couple who reside near the intersection of 11400 South and 700 West and were among the plaintiffs in the court case on the 2000 EA for the *11400 South Interchange and Roadway Improvements Project.* They also supplied comments on the DEIS and were members of the stakeholders group that met on numerous occasions during preparation of the FEIS. An attorney submitted a comment letter on the FEIS on the couple's behalf. The comment letter claims that serious deficiencies exist in the FEIS with respect to: 1) selection of the project

study area; 2) the formulation and implementation of the project purpose and need; 3) the selection of alternatives; 4) the analysis of environmental impacts; and 5) the Section 4(f) analysis. Detailed responses to these comments are provided in Attachment A. In short, the FHWA has determined that nothing in these comments undermines its conclusion that the FEIS/Section 4(f) Evaluation and selection of Alternative 4 are legally adequate and consistent with applicable law.

The only Federal, State, or local government entity providing comment on the FEIS was the Utah Division of Air Quality, who simply noted that a NOI would need to be submitted to the Division of Air Quality if any rock crushing plants, asphalt plants, or concrete batch plants are located at the proposed construction site, and that steps would need to be taken to minimize fugitive dust from construction activities. These requirements have been included as mitigation commitments in the ROD.

Continued public involvement and agency coordination will occur during design and construction and the citizens committee will continue to meet regularly to receive and give input during these activities.

ERRATA

Following publication of the FEIS, the FHWA discovered that a boundary line on Figure 5-8C was drawn incorrectly. The error consisted of a Salt Lake County Parcel boundary being drawn as an Alternative Right-of-Way line. Additionally, the figure did not include a description of the green-hashed area (Rotary Park) in the legend. These errors were typographical in nature and do not alter the descriptions of the impacts as noted in the FEIS. These minor errors were found only in the FEIS and do not affect FHWA's decision in selecting Alternative 4, nor do they require recirculation to the public or agencies. These errors have been corrected and included in this ROD as Attachment D.

CONCLUSION

The FHWA has determined that the Selected Alternative for the 11400 South Study Area best meets the project purpose and need, and that it also adequately addresses environmental, safety, socioeconomic and Section 4(f) considerations and that it is in the best overall public interest to proceed with this project. The Selected Alternative is also the environmentally preferred alternative and is described in detail in the FEIS. This decision is based on the FEIS/Section 4(f) Evaluation, input from the public, agencies and cities, and the administrative record as a whole. Although the No Build Alternative was analyzed, it did not meet the project purpose and need.

The FEIS/Section 4(f) Evaluation discloses the impacts of the Selected Alternative and a reasonable range of alternatives, determines that there is no prudent and feasible alternative that would avoid all Section 4(f) resources and that the Selected Alternative would have the least overall net harm to such resources, and demonstrates that the Selected Alternative for the 11400 South Study area best improves mobility and provides transportation infrastructure to support economic development within the study area through the design year 2030.

In reaching its decision, the FHWA has considered all of the issues raised during the NEPA process and has adequately addressed those concerns. Additionally, the FHWA has consulted with other Federal and State agencies during this process. A full list of interagency coordination is included in the FEIS.

The Selected Alternative was developed through a public process that included project adjustments to avoid and minimize environmental impacts. The Selected Alternative that resulted from this

process includes significant mitigation elements to compensate for unavoidable impacts. Thus, based on our independent review and oversight of the EIS process, the FHWA approves the selection of Alternative 4 for the 11400 South Project.

By _____ Date Sept. 13, 2005

Charles "Wes" Bollinger, P.E.
Acting Division Administrator
Federal Highway Administration
Utah Division
Salt Lake City, Utah